

What is claimed is:

1. A disk reproducing apparatus wherein a defective block list with information registered thereon has been acquired from a recording medium, said information showing defective blocks and alternative blocks linked to each other along with types of defective blocks and, when there arises need to read out a defective block from said recording medium, its alternative block is read out and forwarded to a production requester, said apparatus comprising reading control means for identifying the type of defective blocks registered on said defective block list and controlling the reading according to the identification results.

2. The disk reproducing apparatus as defined in claim 1, wherein said reading control means identifies the type of the defective block registered on the defective block list and controls the reading according to the identification results only when an indication that real time reproduction is important is indicated by said reproduction requester.

3. The disk reproducing apparatus as defined in claim 1 or 2, wherein in case a block to be read is a defective block of a specific type, said reading control means so controls the reading that said defective block is not read out but the next block is read out.

4. The disk reproducing apparatus as defined in claim 1 or 2, wherein said reading control means so controls the reading that in case a read block is a defective block of a specific type, the reading process is continued without interruption and the next block is read out even if reading out said defective block is an error

A 5. The disk reproducing apparatus as defined in claim 1 or 2,  
wherein said reading control means so controls the reading that in case a  
read block is a defective block of a specific type, the reading process is  
continued without retrying reading said defective block and the next block  
is read out.

A 10 6. The disk reproducing apparatus as defined in claim 1 or 2,  
wherein said reading control means so controls the reading that in case a  
read block is a defective block of a specific type, reading said defective  
block is retried a specific number of times.

A 15 7. The disk reproducing apparatus as defined in claim 1 or 2,  
wherein said reading control means so controls the reading as to work out  
the number of reading retrials per defective block on the basis of the  
number of read blocks, the number of blocks to be read and the number of  
defective blocks present among the blocks to be read and to retry reading  
out the defective blocks of a specific type a maximum of that number of  
times.

A 20 8. The disk reproducing apparatus as defined in claim 1 or 2,  
wherein said reading control means so controls the reading as to work out  
the number of reading retrials per defective block on the basis of the  
distribution ratio of defective blocks, the speed at which blocks are read  
out from the recording medium and the speed at which the read blocks are  
25 forwarded to the reproduction requester and to retry reading out the  
defective blocks of a specific type a maximum of that number of times.

9. A disk reproducing apparatus for reading out blocks from a

recording medium and forwarding said blocks to a reproduction requester,  
said apparatus comprising reading control means for so controlling the  
reading as to judge whether that real time reproduction is important is  
indicated by said reproduction requester and to control the reading  
according to the judgement results.

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10. The disk reproducing apparatus as defined in claim 9, wherein  
said reading control means so controls the reading that even if the reading  
of a block is an error, the reading process is continued without  
interruption to read the next block.

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11. The disk reproducing apparatus as defined in claim 9, wherein  
said reading control means so controls the reading that when a block  
reading error occurs, reading this block will not be retried but the next  
block will be read out.

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12. The disk reproducing apparatus as defined in claim 9, wherein  
said reading control means so controls the reading that when a block  
reading error occurs, reading this block will be retried a specific number of  
times.

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A 13. The disk reproducing apparatus as defined in <sup>claim 1</sup> any of claims 1 to  
A 8, wherein defective blocks of said specific type are real time recording  
defective blocks.

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14. A disk reproducing method wherein a defective block list with  
information registered thereon has been acquired from a recording  
medium, said information showing defective blocks and alternative blocks

linked to each other along with types of defective blocks and, when there arises need to read out a defective block from said recording medium, its alternative block is read out and forwarded to a production requester, said method comprising the reading control steps of:

5 identifying the type of defective blocks registered on said defective block list and controlling the reading according to the identification results.

10 15. The disk reproducing method as defined in claim 14, wherein only when an indication that real time reproduction is important is indicated by said reproduction requester, said reading control steps identify the type of said defective block and controls the reading according to the identification results.

15 16. The disk reproducing method as defined in claim 14 ~~or 15~~, wherein said reading control steps so control the reading that in case a block to be read is a defective block of a specific type, said defective block will not be read out but the next block will be read out.

20 17. The disk reproducing method as defined in claim 14 ~~or 15~~, wherein said reading control steps so control the reading that in case a block read out is a defective block of a specific type and even if the reading of the block is an error, the process will be continued without interruption and the next block will be read out.

25 18. The disk reproducing method as defined in claim 14 ~~or 15~~, wherein said reading control steps so control the reading that in case a block read out is a defective block of a specific type, reading said defective

block will not be retried but the next block will be read out.

A 19. The disk reproducing method as defined in claim 14 ~~or 15~~,  
wherein said reading control steps so control the reading that in case a  
5 block read out is a defective block of a specific type, reading said defective  
block will be retried a specific number of times.

A 20. The disk reproducing method as defined in claim 14 ~~or 15~~,  
wherein said reading control steps so control the reading as to work out  
10 the number of reading retrials per defective block on the basis of the  
number of read blocks, the number of blocks to be read and the number of  
defective blocks present among the blocks to be read and to retry reading  
out the defective block of a specific type a maximum of that number of  
times.

A 15 21. The disk reproducing method as defined in claim 14 ~~or 15~~,  
A wherein said reading control steps so control the reading ~~as to~~ as to work  
out the number of reading retrials per defective block on the basis of the  
distribution ratio of defective blocks, the speed at which blocks are read  
20 out from the recording medium and the speed at which the read blocks are  
forwarded to the reproduction requester and to retry reading out the  
defective block of a specific type a maximum of that number of times.

22. A disk reproducing method of reading out blocks from a  
recording medium and forwarding said blocks to a reproduction requester,  
25 said method comprising the reading control steps of judging whether that  
real time reproduction is important is indicated by said reproduction  
requester and controlling the reading according to the judgement results.

23. The disk reproducing method as defined in claim 22, wherein  
said reading control steps so control the reading that even if the reading  
of a block is an error, the process will be continued without interruption  
5 and the next block will be read out.

24. The disk reproducing method as defined in claim 22, wherein  
said reading control steps so control the reading that in case the reading  
of a block is an error, reading said defective block will not be retried but  
10 the next block will be read out.

25. The disk reproducing method as defined in claim 22, wherein  
said reading control steps so control the reading that in case a block  
reading error occurs, reading said defective block will be retried a specific  
15 number of time.

A 26. The disk reproducing method as defined in <sup>Claim 14</sup> ~~any of claims 14 to~~  
A 25, wherein defective blocks of said specific type are real time recording  
defective blocks.

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